Nikon

DIGITAL CAMERA

D800
D800E

User's Manual

En

AF-Assist Illumination

AF-assist illumination is available with lenses with focal lengths of 24–200 mm. It can not however be used to assist the focus operation with the following lenses:

- AF-S VR Nikkor 200mm f/2G IF-ED
- AF-S NIKKOR 200mm f/2G ED VR II
- AF-S VR Zoom-Nikkor 200–400mm f/4G IF-ED
- AF-S NIKKOR 200–400mm f/4G ED VR II

At ranges under 0.7 m (2 ft 4 in.), the following lenses may block the AF-assist illuminator and interfere with autofocus when lighting is poor:

- AF-S NIKKOR 16–35mm f/4G ED VR
- AF-S Zoom-Nikkor 17–35mm f/2.8D IF-ED
- AF-S DX Zoom-Nikkor 17–55mm f/2.8G IF-ED
- AF-S DX NIKKOR 18–200mm f/3.5–5.6G ED VR II
- AF-S NIKKOR 24–70mm f/2.8G ED
- AF-S VR Zoom-Nikkor 24–120mm f/3.5–5.6G IF-ED
- AF-S Zoom Nikkor ED 28–70mm f/2.8D (IF)
- AF Micro-Nikkor 200mm f/4D IF-ED

At ranges under 1.1 m (3 ft 7 in.), the following lenses may block the AF-assist illuminator and interfere with autofocus when lighting is poor:

- AF-S NIKKOR 24–120mm f/4G ED VR
- AF-S NIKKOR 28–300mm f/3.5–5.6G ED VR
- AF-S DX Zoom-Nikkor 55–200mm f/4–5.6G ED

At ranges under 1.5 m (4 ft 11 in.), the following lenses may block the AF-assist illuminator and interfere with autofocus when lighting is poor:

- AF-S NIKKOR 14–24mm f/2.8G ED
- AF-S VR Zoom-Nikkor ED 70–200mm f2.8G (IF)
- AF-S NIKKOR 70–200mm f/2.8G ED VR II
- AF Zoom-Nikkor 70–300mm f/4–5.6G
- AF Zoom-Nikkor 80–200mm f/2.8D ED
- AF-S Zoom-Nikkor 80–200mm f/2.8D IF-ED

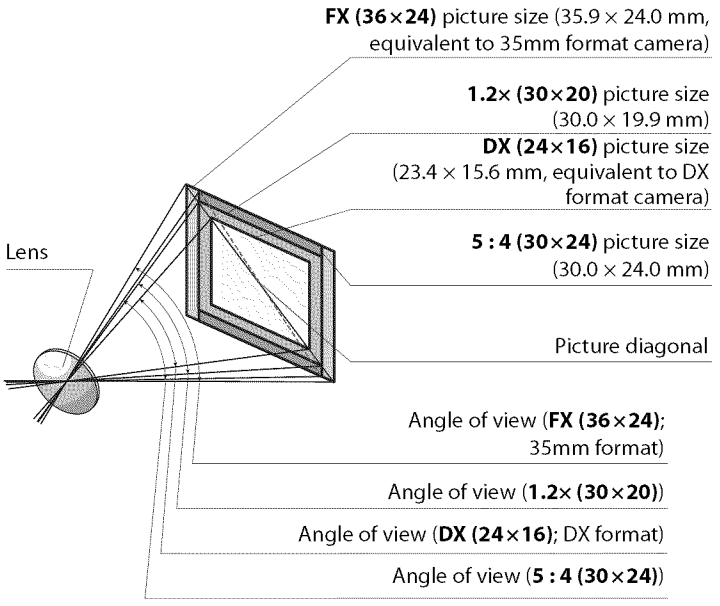
At ranges under 2.3 m (7 ft 7 in.), the following lenses may block the AF-assist illuminator and interfere with autofocus when lighting is poor:

- AF VR Zoom-Nikkor 80–400mm f/4.5–5.6D ED

Calculating Angle of View

The D800 can be used with Nikon lenses for 35mm (135) format cameras. If **Auto DX crop** is on (🕮 79) and a 35mm format lens is attached, the angle of view will be the same as a frame of 35mm film (35.9 × 24.0 mm); if a DX lens is attached, the angle of view will automatically be adjusted to 23.4 × 15.6 mm (DX format).

To choose an angle of view different from that of the current lens, turn **Auto DX crop** off and select from **FX (36×24)**, **1.2× (30×20)**, **DX (24×16)**, and **5 : 4 (30×24)**. If a 35mm format lens is attached, the angle of view could be reduced by 1.5 × by selecting **DX (24×16)** or by 1.2 × by selecting **1.2× (30×20)**, to expose a smaller area, or the aspect ratio could be changed by selecting **5 : 4 (30×24)**.


FX (36×24) picture size (35.9 × 24.0 mm, equivalent to 35mm format camera)
1.2× (30×20) picture size (30.0 × 19.9 mm)
DX (24×16) picture size (23.4 × 15.6 mm, equivalent to DX format camera)
5 : 4 (30×24) picture size (30.0 × 24.0 mm)
Lens
Picture diagonal
Angle of view (**FX (36×24)**; 35mm format)
Angle of view (**1.2× (30×20)**)
Angle of view (**DX (24×16)**; DX format)
Angle of view (**5 : 4 (30×24)**)

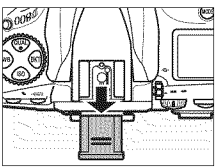
Calculating Angle of View (Continued)

The **DX (24×16)** angle of view is about 1.5 times smaller than the 35mm format angle of view, while the **1.2× (30×20)** angle of view is about 1.2 times smaller and the **5 : 4 (30×24)** angle of view is about 1.1 times smaller. To calculate the focal length of lenses in 35mm format when **DX (24×16)** is selected, multiply the focal length of the lens by about 1.5, by about 1.2 when is **1.2× (30×20)** selected, or by about 1.1 when **5 : 4 (30×24)** is selected (for example, the effective focal length of a 50mm lens in 35mm format would be 75 mm when **DX (24×16)** is selected, 60 mm when **1.2× (30×20)** is selected, or 55 mm when **5 : 4 (30×24)** is selected).

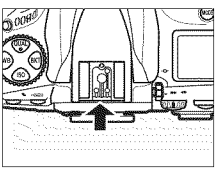
Optional Flash Units (Speedlights)

The camera supports the Nikon Creative Lighting System (CLS) and can be used with CLS-compatible flash units. Optional flash units can be attached directly to the camera accessory shoe as described below. The accessory shoe is equipped with a safety lock for flash units with a locking pin.

1 Remove the accessory shoe cover.



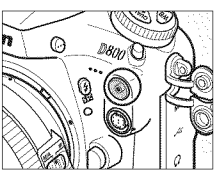
2 Mount the flash unit on the accessory shoe.



See the manual provided with the flash unit for details. The built-in flash will not fire when an optional flash unit is attached.

The Sync Terminal

A sync cable can be connected to the sync terminal as required. Do not connect another flash unit via a sync cable when performing rear-curtain sync flash photography with a flash unit mounted on the camera accessory shoe.



The Nikon Creative Lighting System (CLS)

Nikon's advanced Creative Lighting System (CLS) offers improved communication between the camera and compatible flash units for improved flash photography.

■ *CLS-Compatible Flash Units*

The camera can be used with the following CLS-compatible flash units:

- **The SB-910, SB-900, SB-800, SB-700, SB-600, SB-400, and SB-R200:**

Feature \ Flash unit		SB-910 [1]	SB-900 [1]	SB-800	SB-700 [1]	SB-600	SB-400 [2]	SB-R200 [3]
Guide No. [4]	ISO 100	34/111	34/111	38/125	28/92	30/98	21/69	10/33
	ISO 200	48/157	48/157	53/174	39/128	42/138	30/98	14/46

1 If a color filter is attached to the SB-910, SB-900, or SB-700 when AUTO or ⚡ (flash) is selected for white balance, the camera will automatically detect the filter and adjust white balance appropriately.
2 Wireless flash control is not available with the SB-400.
3 Controlled remotely with built-in flash in commander mode or using optional SB-910, SB-900, SB-800, or SB-700 flash unit or SU-800 wireless Speedlight commander.
4 m/ft, 20 °C (68 °F), SB-910, SB-900, SB-800, SB-700, and SB-600 at 35 mm zoom head position; SB-910, SB-900, and SB-700 with standard illumination.

- **SU-800 Wireless Speedlight Commander:** When mounted on a CLS-compatible camera, the SU-800 can be used as a commander for remote SB-910, SB-900, SB-800, SB-700, SB-600, or SB-R200 flash units in up to three groups. The SU-800 itself is not equipped with a flash.

Guide Number

To calculate the range of the flash at full power, divide the Guide Number by the aperture. For example, at ISO 100 the SB-800 has a Guide Number of 38 m or 125 ft (35mm zoom head position); its range at an aperture of f/5.6 is 38÷5.6 or about 6.8 meters (or in feet, 125÷5.6=approximately 23 ft 7 in.). For each twofold increase in ISO sensitivity, multiply the Guide Number by the square root of two (approximately 1.4).

The following features are available with CLS-compatible flash units:

Flash mode/feature		Flash unit: SB-910 / SB-900 / SB-800	SB-700	SB-600	SB-400	Advanced Wireless Lighting: Master/commander: SB-910 / SB-900 / SB-800	SB-700	SU-800 [1]	Remote: SB-910 / SB-900 / SB-800	SB-700 / SB-600	SB-R200
i-TTL	i-TTL balanced fill-flash for digital SLR	✔[2]	✔[3]	✔[2]	✔[3]	✔	✔	✔	✔	✔	✔
AA	Auto aperture	✔[4]	—	—	—	✔[5]	—	✔[5]	✔[5]	—	—
A	Non-TTL auto	✔[4]	—	—	—	✔[5]	—	—	✔[5]	—	—
GN	Distance-priority manual	✔	✔	—	—	—	—	—	—	—	—
M	Manual	✔	✔	✔	✔[6]	✔	✔	✔	✔	✔	✔
RPT	Repeating flash	✔	—	—	—	✔	—	✔	✔	✔	—
Auto FP High-Speed Sync[7]		✔	✔	✔	—	✔	✔	✔	✔	✔	✔
FV lock		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
AF-assist for multi-area AF[8]		✔	✔	✔	—	✔	✔	✔	—	—	—
Flash Color Information Communication		✔	✔	✔	✔	✔	✔	—	—	—	—
REAR	Rear-curtain sync	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
👁	Red-eye reduction	✔	✔	✔	✔	✔	✔	—	—	—	—
Power zoom		✔	✔	✔	—	✔	✔	—	—	—	—

1 Only available when SU-800 is used to control other flash units. The SU-800 itself is not equipped with a flash.
2 Standard i-TTL flash for digital SLR is used with spot metering or when selected with flash unit.
3 Standard i-TTL flash for digital SLR is used with spot metering.
4 Selected with flash unit.
5 Auto aperture (**AA**) is used regardless of mode selected with flash unit.
6 Can be selected with camera.
7 Select **1/320s (Auto FP)** or **1/250 s (Auto FP)** for Custom Setting e1 (**Flash sync speed**, 📖 299).
8 CPU lens required.

Other Flash Units

The following flash units can be used in non-TTL auto and manual modes.

Flash mode \ Flash unit		SB-80DX, SB-28DX, SB-28, SB-26, SB-25, SB-24	SB-50DX	SB-30, SB-27[1], SB-22S, SB-22, SB-20, SB-16B, SB-15	SB-23, SB-29[2], SB-21B[2], SB-29S[2]
A	Non-TTL auto	✔	—	✔	—
M	Manual	✔	✔	✔	✔
	Repeating flash	✔	—	—	—
REAR[3]	Rear-curtain sync	✔	✔	✔	✔

1 Flash mode is automatically set to TTL and shutter-release is disabled. Set flash unit to **A** (non-TTL auto flash).
2 Autofocus is available with AF-S VR Micro-Nikkor 105mm f/2.8G IF-ED and AF-S Micro NIKKOR 60mm f/2.8G ED lenses only.
3 Available when camera is used to select flash mode.

Auto Aperture/Non-TTL Auto

Unless the focal length and maximum aperture are specified using the **Non-CPU lens data** option in the setup menu (🕮 213), choosing auto aperture (**AA**) when a non-CPU lens is attached automatically selects non-TTL auto (**A**).

Notes on Optional Flash Units

Refer to the flash unit manual for detailed instructions. If the unit supports CLS, refer to the section on CLS-compatible digital SLR cameras. The D800 is not included in the "digital SLR" category in the SB-80DX, SB-28DX, and SB-50DX manuals.

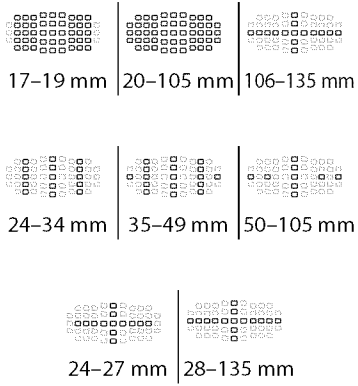
i-TTL flash control can be used at ISO sensitivities between 100 and 6400. At values over 6400, the desired results may not be achieved at some ranges or aperture settings. If the flash-ready indicator blinks for about three seconds after a photograph is taken, the flash has fired at full power and the photograph may be underexposed. View the photograph in the monitor; if it is underexposed, adjust aperture, ISO sensitivity, or the distance to the subject and try again.

When an SC-series 17, 28, or 29 sync cable is used for off-camera flash photography, correct exposure may not be achieved in i-TTL mode. We recommend that you select standard i-TTL flash control. Take a test shot and view the results in the monitor.

In i-TTL, use the flash panel or bounce adapter provided with the flash unit. Do not use other panels such as diffusion panels, as this may produce incorrect exposure.

The SB-910, SB-900, SB-800, SB-700, SB-600, and SB-400 provide red-eye reduction, while the SB-910, SB-900, SB-800, SB-700, SB-600, and SU-800 provide AF-assist illumination with the following restrictions:

- **SB-910 and SB-900**: AF-assist illumination is available with 17–135 mm AF lenses, however, autofocus is available only with the focus points shown at right.
- **SB-800, SB-600, and SU-800**: AF-assist illumination is available with 24–105 mm AF lenses, however, autofocus is available only with the focus points shown at right.
- **SB-700**: AF-assist illumination is available with 24–135 mm AF lenses, however, autofocus is available only with the focus points shown at right.



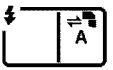
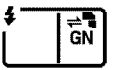
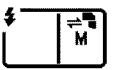
In exposure mode **P**, the maximum aperture (minimum f-number) is limited according to ISO sensitivity, as shown below:

Maximum aperture at ISO equivalent of:						
100	200	400	800	1600	3200	6400
4	5	5.6	7.1	8	10	11

If the maximum aperture of the lens is smaller than given above, the maximum value for aperture will be the maximum aperture of the lens.

Flash Control Mode

The information display shows the flash control mode for optional flash units as follows:

	Flash sync	Auto FP (🕮 300)
i-TTL		
Auto aperture (AA)		
Non-TTL auto flash (A)		
Distance-priority manual (GN)		
Manual		
Repeating flash		—
Advanced wireless lighting		

Use Only Nikon Flash Accessories

Use only Nikon flash units. Negative voltages or voltages over 250 V applied to the accessory shoe could not only prevent normal operation, but damage the sync circuitry of the camera or flash. Before using a Nikon flash unit not listed in this section, contact a Nikon-authorized service representative for more information.

Other Accessories

At the time of writing, the following accessories were available for the D800.

Power sources	• **Rechargeable Li-ion Battery EN-EL15** (📖 19, 21): Additional EN-EL15 batteries are available from local retailers and Nikon service representatives. These batteries can be recharged using an MH-25 battery charger. • **Battery Charger MH-25** (📖 19): The MH-25 can be used to recharge EN-EL15 batteries. • **Multi-Power Battery Pack MB-D12**: The MB-D12 is equipped with a shutter-release button, **AF-ON** button, multi selector, and main- and sub-command dials for improved operation when taking photographs in portrait (tall) orientation. When attaching the MB-D12, remove the camera MB-D12 contact cover. A BL-5 battery-chamber cover and an MH-26 battery charger are required when using EN-EL18 batteries. • **Power Connector EP-5B, AC Adapter EH-5b**: These accessories can be used to power the camera for extended periods (EH-5a and EH-5 AC adapters can also be used). A power connector EP-5B is required to connect the camera to the EH-5b, EH-5a, or EH-5; see page 391 for details. Note that when the camera is used with an MB-D12, the EP-5B must be inserted into the MB-D12, not the camera. Do not attempt to use the camera with power connectors inserted into both the camera and MB-D12.
Wireless LAN adapters (📖 245)	**Wireless Transmitter WT-4**: Connects the camera to wireless and Ethernet networks. The photographs on the camera memory card can be viewed by computers on the same network or copied to a computer for long-term storage. The camera can also be controlled from any computer on the network using Camera Control Pro 2 (available separately). Note that the WT-4 requires an independent power source in the form of an optional EH-6b AC adapter or EN-EL3e battery. See the WT-4 manual for details. Always use the latest version of the WT-4 software.

Viewfinder eyepiece accessories

- **Rubber Eyecup DK-19**: The DK-19 makes the image in the viewfinder easier to see, preventing eye fatigue.
- **Diopter-Adjustment Viewfinder Lens DK-17C**: To accommodate individual differences in vision, viewfinder lenses are available with diopters of −3, −2, 0, +1, and +2 m^{-1}. Use diopter adjustment lenses only if the desired focus can not be achieved with the built-in diopter adjustment control (−3 to +1 m^{-1}). Test diopter adjustment lenses before purchase to ensure that the desired focus can be achieved. The DK-17C is equipped with a safety lock.
- **Magnifying Eyepiece DK-17M**: The DK-17M magnifies the view through the viewfinder by approximately 1.2 × for greater precision when framing. The DK-17M is equipped with a safety lock.
- **Eyepiece Magnifier DG-2**: The DG-2 magnifies the scene at the center of the viewfinder for more accurate focus. DK-18 eyepiece adapter (available separately) required.
- **Eyepiece Adapter DK-18**: The DK-18 is used when attaching the DG-2 magnifier or DR-3 right-angle viewing attachment to the D800.
- **Antifog Finder Eyepiece DK-14/Antifog Finder Eyepiece DK-17A**: These viewfinder eyepieces prevent fogging in humid or cold conditions. The DK-17A is equipped with a safety lock.
- **Right-Angle Viewing Attachment DR-5/Right-Angle Viewing Attachment DR-4**: The DR-5 and DR-4 attach to the viewfinder eyepiece at a right angle, allowing the image in the viewfinder to be viewed from above when the camera is in the horizontal shooting position. The DR-5 supports diopter adjustment and can also magnify the view through the viewfinder by 2 × for greater precision when framing (note that the edges of the frame will not be visible when the view is magnified).

Filters	• Filters intended for special-effects photography may interfere with autofocus or the electronic rangefinder. • The D800 can not be used with linear polarizing filters. Use the C-PL or C-PLII circular polarizing filter instead. • Use NC filters to protect the lens. • To prevent ghosting, use of a filter is not recommended when the subject is framed against a bright light, or when a bright light source is in the frame. • Center-weighted metering is recommended with filters with exposure factors (filter factors) over 1× (Y44, Y48, Y52, O56, R60, X0, X1, C-PL, ND2S, ND4, ND4S, ND8, ND8S, ND400, A2, A12, B2, B8, B12). See the filter manual for details.
PC card adapters	**PC Card Adapter EC-AD1**: The EC-AD1 PC card adapter allows Type I CompactFlash memory cards to be inserted in PCMCIA card slots.
Software	• **Capture NX 2**: A complete photo editing package with such advanced editing features as selection control points and an auto retouch brush. • **Camera Control Pro 2**: Control the camera remotely from a computer and save photographs directly to the computer hard disk. **Note**: Use the latest versions of Nikon software; see the websites listed on page xx for the latest information on supported operating systems. At default settings, Nikon Message Center 2 will periodically check for updates to Nikon software and firmware while you are logged in to an account on the computer and the computer is connected to the Internet. A message is automatically displayed when an update is found.
Body caps	**Body Cap BF-1B/Body Cap BF-1A**: The body cap keeps the mirror, viewfinder screen, and low-pass filter free of dust when a lens is not in place.
Microphones	**Stereo Microphone ME-1** (📖 65): Connect the ME-1 to the camera microphone jack to record stereo sound while reducing the noise caused by lens vibration being recorded with movies during autofocus.

Remote terminal accessories

The D800 is equipped with a ten-pin remote terminal (📖 3) for remote control and automatic photography. The terminal is provided with a cap, which protects the contacts when the terminal is not in use. The following accessories can be used (all lengths are approximate):

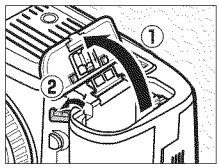
- **Remote Cord MC-22**: Remote shutter release with blue, yellow, and black terminals for connection to a remote shutter-triggering device, allowing control via sound or electronic signals (length 1 m/3 ft 3 in.).
- **Remote Cord MC-30**: Remote shutter release; can be used to reduce camera shake (length 80 cm/2 ft 7 in.).
- **Remote Cord MC-36**: Remote shutter release; can be used for interval timer photography or to reduce camera shake or keep the shutter open during a time exposure (length 85 cm/2 ft 9 in.).
- **Extension Cord MC-21**: Can be connected to ML-3 or MC-series 20, 22, 23, 25, 30, or 36. Only one MC-21 can be used at a time (length 3 m/9 ft 10 in.).
- **Connecting Cord MC-23**: Connects two cameras for simultaneous operation (length 40 cm/1 ft 4 in.).
- **Adapter Cord MC-25**: Ten-pin to two-pin adapter cord for connection to devices with two-pin terminals, including the MW-2 radio control set, MT-2 intervalometer, and ML-2 modulite control set (length 20 cm/8 in.).
- **GPS Unit GP-1** (📖 215): Record latitude, longitude, altitude, and UTC time with pictures.
- **GPS Adapter Cord MC-35** (📖 216): Connects GPS devices to D800 via PC cable supplied by manufacturer of GPS device (length 35 cm/1 ft 2 in.).
- **Modulite Remote Control Set ML-3**: Allows infrared remote control at ranges of up to 8 m (26 ft 3 in.).

Attaching a Power Connector and AC Adapter

Turn the camera off before attaching an optional power connector and AC adapter.

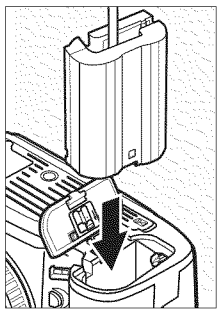
1 Ready the camera.

Open the battery-chamber (①) and power connector (②) covers.



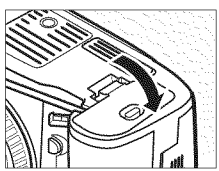
2 Insert the EP-5B power connector.

Be sure to insert the connector in the orientation shown, using the connector to keep the orange battery latch pressed to one side. The latch locks the connector in place when the connector is fully inserted.



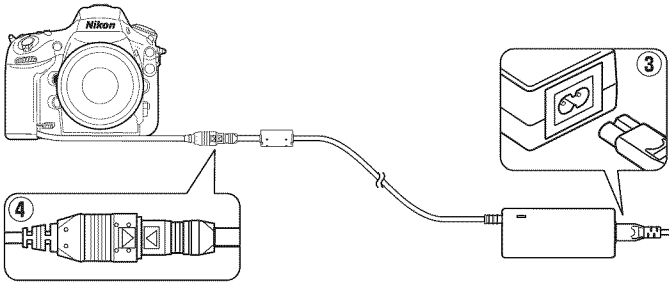
3 Close the battery-chamber cover.

Position the power connector cable so that it passes through the power connector slot and close the battery-chamber cover.



4 Connect the AC adapter.

Connect the AC adapter power cable to the AC socket on AC adapter (③) and the EP-5B power cable to the DC socket (④). When the camera is powered by the AC adapter and power connector, the battery level display in the monitor turns off.



Caring for the Camera

Storage

When the camera will not be used for an extended period, remove the battery and store it in a cool, dry area with the terminal cover in place. To prevent mold or mildew, store the camera in a dry, well-ventilated area. Do not store your camera with naphtha or camphor moth balls or in locations that:

- are poorly ventilated or subject to humidities of over 60%
- are next to equipment that produces strong electromagnetic fields, such as televisions or radios
- are exposed to temperatures above 50 °C (122 °F) or below −10 °C (14 °F)

Cleaning

Camera body	Use a blower to remove dust and lint, then wipe gently with a soft, dry cloth. After using the camera at the beach or seaside, wipe off sand or salt with a cloth lightly dampened in distilled water and dry thoroughly. **Important**: *Dust or other foreign matter inside the camera may cause damage not covered under warranty.*
Lens, mirror, and viewfinder	These glass elements are easily damaged. Remove dust and lint with a blower. If using an aerosol blower, keep the can vertical to prevent the discharge of liquid. To remove fingerprints and other stains, apply a small amount of lens cleaner to a soft cloth and clean with care.
Monitor	Remove dust and lint with a blower. When removing fingerprints and other stains, wipe the surface lightly with a soft cloth or chamois leather. Do not apply pressure, as this could result in damage or malfunction.

Do not use alcohol, thinner, or other volatile chemicals.

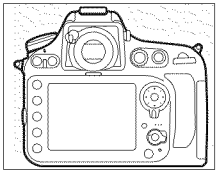
The Low-Pass Filter

The image sensor that acts as the camera's picture element is fitted with a low-pass filter to prevent moiré. If you suspect that dirt or dust on the filter is appearing in photographs, you can clean the filter using the **Clean image sensor** option in the setup menu. The filter can be cleaned at any time using the **Clean now** option, or cleaning can be performed automatically when the camera is turned on or off.

■ *"Clean Now"*

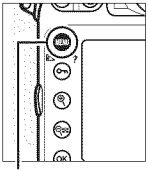
1 Place the camera base down.

Image sensor cleaning is most effective when the camera is placed base down as shown at right.



2 Select **Clean image sensor** in the setup menu.

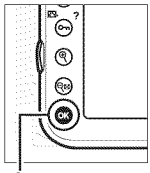
Press MENU to display the menus. Highlight **Clean image sensor** in the setup menu and press ▶.



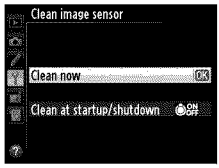
MENU button

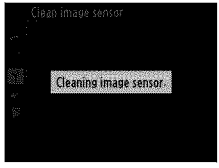
3 Select **Clean now.**

Highlight **Clean now** and press OK. The camera will check the image sensor and then begin cleaning. This process takes about ten seconds; during this time, bUSY is displayed in the control panel and other operations can not be performed. Do not remove or disconnect the power source until cleaning is complete and bUSY is no longer displayed.



OK button





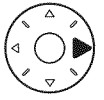
■ "Clean at Startup/Shutdown"

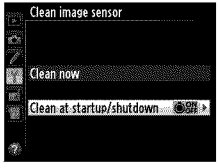
Choose from the following options:

Option	Description
ON Clean at startup	The image sensor is automatically cleaned each time the camera is turned on.
OFF Clean at shutdown	The image sensor is automatically cleaned during shutdown each time the camera is turned off.
ON/OFF Clean at startup & shutdown	The image sensor is cleaned automatically at startup and at shutdown.
Cleaning off	Automatic image sensor cleaning off.

1 Select **Clean at startup/ shutdown.**

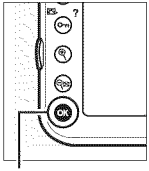
Display the **Clean image sensor** menu as described in Step 2 on the previous page. Highlight **Clean at startup/ shutdown** and press ▶.





2 Select an option.

Highlight an option and press ⊛.



⊛ button

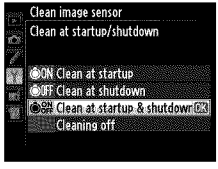


Image Sensor Cleaning

Using camera controls during startup interrupts image sensor cleaning. Image sensor cleaning may not be performed at startup if the flash is charging.

Cleaning is performed by vibrating the low-pass filter. If dust can not be fully removed using the options in the **Clean image sensor** menu, clean the image sensor manually (see below) or consult a Nikon-authorized service representative.

If image sensor cleaning is performed several times in succession, image sensor cleaning may be temporarily disabled to protect the camera's internal circuitry. Cleaning can be performed again after a short wait.

Manual Cleaning

If foreign matter can not be removed from the low-pass filter using the **Clean image sensor** (📖 394) option in the setup menu, the filter can be cleaned manually as described below. Note, however, that the filter is extremely delicate and easily damaged. Nikon recommends that the filter be cleaned only by Nikon-authorized service personnel.

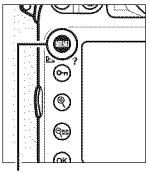
1 Charge the battery or connect an AC adapter.

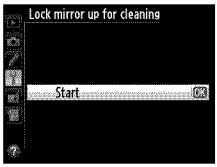
A reliable power source is required when inspecting or cleaning the low-pass filter. Turn the camera off and insert a fully-charged EN-EL15 battery or connect an optional EP-5B power connector and EH-5b AC adapter.

2 Remove the lens.

Turn the camera off and remove the lens.

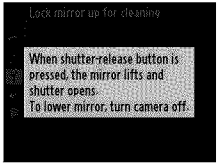
3 Select **Lock mirror up for cleaning.**

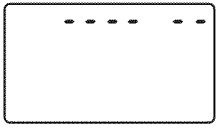




Turn the camera on and press the MENU button to display the menus. Highlight **Lock mirror up for cleaning** in the setup menu and press ▶ (note that this option is not available at battery levels of or below).

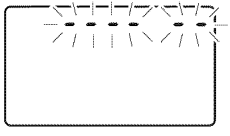
4 Press OK.


Lock mirror up for cleaning
When shutter-release button is pressed, the mirror lifts and shutter opens.
To lower mirror, turn camera off.



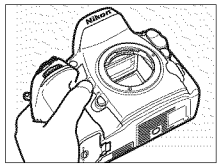
The message shown at right will be displayed in the monitor and a row of dashes will appear in the control panel and viewfinder. To restore normal operation without inspecting the low-pass filter, turn the camera off.

5 Raise the mirror.



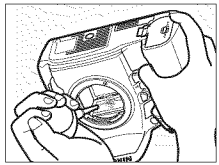
Press the shutter-release button all the way down. The mirror will be raised and the shutter curtain will open, revealing the low-pass filter. The display in the viewfinder will turn off and the row of dashes in the control panel will blink.

6 Examine the low-pass filter.



Holding the camera so that light falls on the low-pass filter, examine the filter for dust or lint. If no foreign objects are present, proceed to Step 8.

7 Clean the filter.



Remove any dust and lint from the filter with a blower. Do not use a blower-brush, as the bristles could damage the filter. Dirt that can not be removed with a blower can only be removed by Nikon-authorized service personnel. Under no circumstances should you touch or wipe the filter.

8 Turn the camera off.

The mirror will return to the down position and the shutter curtain will close. Replace the lens or body cap.

Use a Reliable Power Source

The shutter curtain is delicate and easily damaged. If the camera powers off while the mirror is raised, the curtain will close automatically. To prevent damage to the curtain, observe the following precautions:

- Do not turn the camera off or remove or disconnect the power source while the mirror is raised.
- If the battery runs low while the mirror is raised, a beep will sound and the self-timer lamp will blink to warn that the shutter curtain will close and the mirror will be lowered after about two minutes. End cleaning or inspection immediately.

Foreign Matter on the Low-Pass Filter

Nikon takes every possible precaution to prevent foreign matter from coming into contact with the low-pass filter during production and shipping. The D800, however, is designed to be used with interchangeable lenses, and foreign matter may enter the camera when lenses are removed or exchanged. Once inside the camera, this foreign matter may adhere to the low-pass filter, where it may appear in photographs taken under certain conditions. To protect the camera when no lens is in place, be sure to replace the body cap provided with the camera, being careful to first remove all dust and other foreign matter that may be adhering to the body cap.

Should foreign matter find its way onto the low-pass filter, clean the filter as described above, or have the filter cleaned by authorized Nikon service personnel. Photographs affected by the presence of foreign matter on the filter can be retouched using Capture NX 2 (available separately; 📖 389) or the clean image options available in some third-party imaging applications.

Servicing the Camera and Accessories

The camera is a precision device and requires regular servicing. Nikon recommends that the camera be inspected by the original retailer or Nikon service representative once every one to two years, and that it be serviced once every three to five years (note that fees apply to these services). Frequent inspection and servicing are particularly recommended if the camera is used professionally. Any accessories regularly used with the camera, such as lenses or optional flash units, should be included when the camera is inspected or serviced.

Caring for the Camera and Battery: Cautions

Do not drop: The product may malfunction if subjected to strong shocks or vibration.

Keep dry: This product is not waterproof, and may malfunction if immersed in water or exposed to high levels of humidity. Rusting of the internal mechanism can cause irreparable damage.

Avoid sudden changes in temperature: Sudden changes in temperature, such as those that occur when entering or leaving a heated building on a cold day, can cause condensation inside the device. To prevent condensation, place the device in a carrying case or plastic bag before exposing it to sudden changes in temperature.

Keep away from strong magnetic fields: Do not use or store this device in the vicinity of equipment that generates strong electromagnetic radiation or magnetic fields. Strong static charges or the magnetic fields produced by equipment such as radio transmitters could interfere with the monitor, damage data stored on the memory card, or affect the product's internal circuitry.

Do not leave the lens pointed at the sun: Do not leave the lens pointed at the sun or other strong light source for an extended period. Intense light may cause the image sensor to deteriorate or produce a white blur effect in photographs.

Cleaning: When cleaning the camera body, use a blower to gently remove dust and lint, then wipe gently with a soft, dry cloth. After using the camera at the beach or seaside, wipe off any sand or salt using a cloth lightly dampened in pure water and then dry the camera thoroughly. In rare instances, static electricity may cause the LCD displays to light up or go dark. This does not indicate a malfunction, and the display will soon return to normal.

The lens and mirror are easily damaged. Dust and lint should be gently removed with a blower. When using an aerosol blower, keep the can vertical to prevent discharge of liquid. To remove fingerprints and other stains from the lens, apply a small amount of lens cleaner to a soft cloth and wipe the lens carefully.

See "The Low-Pass Filter" (🕮 394) for information on cleaning the low-pass filter.

Lens contacts: Keep the lens contacts clean.

Do not touch the shutter curtain: The shutter curtain is extremely thin and easily damaged. Under no circumstances should you exert pressure on the curtain, poke it with cleaning tools, or subject it to powerful air currents from a blower. These actions could scratch, deform, or tear the curtain.

The shutter curtain may appear to be unevenly colored, but this has no affect on pictures and does not indicate a malfunction.

Storage: To prevent mold or mildew, store the camera in a dry, well-ventilated area. If you are using an AC adapter, unplug the adapter to prevent fire. If the product will not be used for an extended period, remove the battery to prevent leakage and store the camera in a plastic bag containing a desiccant. Do not, however, store the camera case in a plastic bag, as this may cause the material to deteriorate. Note that desiccant gradually loses its capacity to absorb moisture and should be replaced at regular intervals.

To prevent mold or mildew, take the camera out of storage at least once a month. Turn the camera on and release the shutter a few times before putting it away.

Store the battery in a cool, dry place. Replace the terminal cover before putting the battery away.

Turn the product off before removing or disconnecting the power source: Do not unplug the product or remove the battery while the product is on or while images are being recorded or deleted. Forcibly cutting power in these circumstances could result in loss of data or in damage to product memory or internal circuitry. To prevent an accidental interruption of power, avoid carrying the product from one location to another while the AC adapter is connected.

Notes on the monitor: The monitor is constructed with extremely high precision; at least 99.99% of pixels are effective, with no more than 0.01% being missing or defective. Hence while these displays may contain pixels that are always lit (white, red, blue, or green) or always off (black), this is not a malfunction and has no effect on images recorded with the device.

Images in the monitor may be difficult to see in a bright light.

Do not apply pressure to the monitor, as this could cause damage or malfunction. Dust or lint on the monitor can be removed with a blower. Stains can be removed by wiping lightly with a soft cloth or chamois leather. Should the monitor break, care should be taken to avoid injury from broken glass and to prevent liquid crystal from the monitor touching the skin or entering the eyes and mouth.

Replace the monitor cover when transporting the camera or leaving it unattended.

Batteries: Batteries may leak or explode if improperly handled. Observe the following precautions when handling batteries:

- Use only batteries approved for use in this equipment.
- Do not expose the battery to flame or excessive heat.
- Keep the battery terminals clean.
- Turn the product off before replacing the battery.
- Remove the battery from the camera or charger when not in use and replace the terminal cover. These devices draw minute amounts of charge even when off and could draw the battery down to the point that it will no longer function. If the battery will not be used for some time, insert it in the camera and run it flat before removing it from the camera for storage. The battery should be stored in a cool location with an ambient temperature of 15 to 25 °C (59 to 77 °F; avoid hot or extremely cold locations). Repeat this process at least once every six months.

- Turning the camera on or off repeatedly when the battery is fully discharged will shorten battery life. Batteries that have been fully discharged must be charged before use.
- The internal temperature of the battery may rise while the battery is in use. Attempting to charge the battery while the internal temperature is elevated will impair battery performance, and the battery may not charge or charge only partially. Wait for the battery to cool before charging.
- Continuing to charge the battery after it is fully charged can impair battery performance.
- A marked drop in the time a fully charged battery retains its charge when used at room temperature indicates that it requires replacement. Purchase a new EN-EL15 battery.
- Charge the battery before use. When taking photographs on important occasions, ready a spare EN-EL15 battery and keep it fully charged. Depending on your location, it may be difficult to purchase replacement batteries on short notice. Note that on cold days, the capacity of batteries tends to decrease. Be sure the battery is fully charged before taking photographs outside in cold weather. Keep a spare battery in a warm place and exchange the two as necessary. Once warmed, a cold battery may recover some of its charge.
- Used batteries are a valuable resource; recycle in accord with local regulations.

Defaults

The default settings for the options in the camera menus are listed below. For information on two-button reset, see page 193.

■■ *Playback Menu Defaults*

Option	Default
Playback folder (📖 260)	ND800
Image review (📖 265)	Off
After delete (📖 266)	Show next
Rotate tall (📖 266)	On
Slide show (📖 267)	
Image type (📖 267)	Still images and movies
Frame interval (📖 267)	2 s

■■ *Shooting Menu Defaults* [1]

Option	Default
Extended menu banks (📖 270)	Off
File naming (📖 273)	DSC
Primary slot selection (📖 89)	SD card slot
Secondary slot function (📖 89)	Overflow
Image quality (📖 84)	JPEG normal
Image size (📖 87)	Large
Image area (📖 79)	
Auto DX crop (📖 79)	On
Choose image area (📖 80)	FX (36×24)
JPEG compression (📖 86)	Size priority
NEF (RAW) recording (📖 86)	
Type (📖 86)	Lossless compressed
NEF (RAW) bit depth (📖 86)	14-bit
White balance (📖 145)	Auto > Normal
Fine-tuning (📖 148)	A-B: 0, G-M: 0
Choose color temp. (📖 152)	5000 K
Preset manual (📖 154)	d-1

Option	Default
Set Picture Control (📖 163)	Standard
Color space (📖 274)	sRGB
Active D-Lighting (📖 174)	Off
HDR (high dynamic range) (📖 176)	
HDR mode (📖 177)	Off
Exposure differential (📖 178)	Auto
Smoothing (📖 178)	Normal
Vignette control (📖 275)	Normal
Auto distortion control (📖 276)	Off
Long exposure NR (📖 277)	Off
High ISO NR (📖 277)	Normal
ISO sensitivity settings (📖 109)	
ISO sensitivity (📖 109)	100
Auto ISO sensitivity control (📖 111)	Off
Multiple exposure (📖 195) [2]	
Multiple exposure mode (📖 196)	Off
Number of shots (📖 197)	2
Auto gain (📖 198)	On
Interval timer shooting (📖 201)	Reset [3]
Time-lapse photography (📖 207)	Reset [4]
Movie settings (📖 70)	
Frame size/frame rate (📖 70)	1920 × 1080; 30 fps
Movie quality (📖 70)	High quality
Microphone (📖 70)	Auto sensitivity
Destination (📖 70)	SD card slot

1 Default settings can be restored using **Shooting menu bank** (📖 269). With the exception of **Extended menu banks**, **Multiple exposure**, **Interval timer shooting**, and **Time-lapse photography**, only settings in the current shooting menu bank will be reset.

2 Applies to all banks. Shooting menu reset is not available while shooting is in progress.

3 Applies to all banks. Shooting ends when reset is performed.

4 Applies to all banks. Interval reset to 5 s, recording time to 25 minutes.

■■ *Custom Settings Menu Defaults* *

	Option	Default
a1	AF-C priority selection (🕮 281)	Release
a2	AF-S priority selection (🕮 282)	Focus
a3	Focus tracking with lock-on (🕮 283)	3 (Normal)
a4	AF activation (🕮 283)	Shutter/AF-ON
a5	AF point illumination (🕮 284)	Auto
a6	Focus point wrap-around (🕮 284)	No wrap
a7	Number of focus points (🕮 285)	51 points
a8	Built-in AF-assist illuminator (🕮 286)	On
b1	ISO sensitivity step value (🕮 287)	1/3 step
b2	EV steps for exposure cntrl (🕮 287)	1/3 step
b3	Exp./flash comp. step value (🕮 287)	1/3 step
b4	Easy exposure compensation (🕮 288)	Off
b5	Center-weighted area (🕮 289)	Ø 12 mm
b6	Fine-tune optimal exposure (🕮 290)	
	Matrix metering	0
	Center-weighted metering	0
	Spot metering	0
c1	Shutter-release button AE-L (🕮 290)	Off
c2	Auto meter-off delay (🕮 291)	6 s
c3	Self-timer (🕮 291)	
	Self-timer delay	10 s
	Number of shots	1
	Interval between shots	0.5 s
c4	Monitor off delay (🕮 292)	
	Playback	10 s
	Menus	1 min
	Information display	10 s
	Image review	4 s
	Live view	10 min

	Option	Default
d1	Beep (📖 292)	
	Volume	Off
	Pitch	High
d2	CL mode shooting speed (📖 293)	2 fps
d3	Max. continuous release (📖 293)	100
d4	Exposure delay mode (📖 293)	Off
d5	File number sequence (📖 294)	On
d6	Viewfinder grid display (📖 295)	Off
d7	ISO display and adjustment (📖 295)	Show frame count
d8	Screen tips (📖 295)	On
d9	Information display (📖 296)	Auto
d10	LCD illumination (📖 296)	Off
d11	MB-D12 battery type (📖 297)	LR6 (AA alkaline)
d12	Battery order (📖 298)	Use MB-D12 batteries first
e1	Flash sync speed (📖 299)	1/250 s
e2	Flash shutter speed (📖 300)	1/60 s
e3	Flash cntrl for built-in flash/Optional flash (📖 301, 302)	TTL
e4	Modeling flash (📖 307)	On
e5	Auto bracketing set (📖 307)	AE & flash
e6	Auto bracketing (Mode M) (📖 308)	Flash/speed
e7	Bracketing order (📖 308)	MTR > under > over
f1	☀ switch (📖 309)	LCD backlight (☀)
f2	Multi selector center button (📖 309)	
	Shooting mode	Select center focus point
	Playback mode	Thumbnail on/off
	Live view	Select center focus point
f3	Multi selector (📖 310)	Do nothing
f4	Assign Fn button (📖 311)	
	Fn button press (📖 311)	Viewfinder virtual horizon
	Fn button + command dials (📖 314)	None

	Option	Default
f5	Assign preview button (📖 315)	
	Preview button press	Preview
	Preview + command dials	None
f6	Assign AE-L/AF-L button (📖 315)	
	AE-L/AF-L button press	AE/AF lock
	AE-L/AF-L + command dials	None
f7	Shutter spd & aperture lock (📖 316)	
	Shutter speed lock	Off
	Aperture lock	Off
f8	Assign BKT button (📖 316)	Auto bracketing
f9	Customize command dials (📖 317)	
	Reverse rotation (📖 317)	**Exposure compensation:** ☐ **Shutter speed/aperture:** ☐
	Change main/sub (📖 317)	Off
	Aperture setting (📖 317)	Sub-command dial
	Menus and playback (📖 318)	Off
f10	Release button to use dial (📖 318)	No
f11	Slot empty release lock (📖 319)	Enable release
f12	Reverse indicators (📖 319)	−◂iiiiiiiiiii▸+
f13	Assign MB-D12 AF-ON (📖 320)	AF-ON
g1	Assign Fn button (📖 321)	
	Fn button press	None
g2	Assign preview button (📖 322)	
	Preview button press	Index marking
g3	Assign AE-L/AF-L button (📖 323)	
	AE-L/AF-L button press	AE/AF lock
g4	Assign shutter button (📖 324)	Take photos

* Defaults for the current Custom Settings bank can be restored using **Custom settings bank** (📖 280).

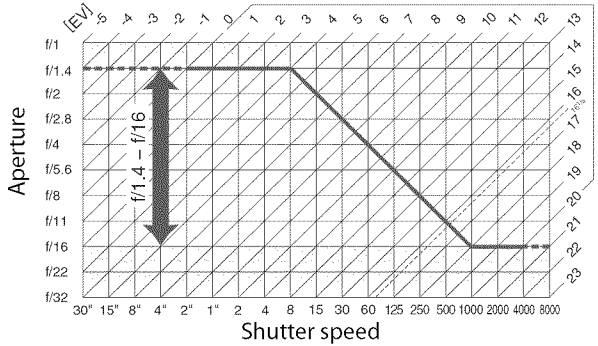
■■ Setup Menu Defaults

Option	Default
Monitor brightness (📖 326)	Manual
Manual	0
Clean image sensor (📖 394)	
Clean at startup/shutdown (📖 396)	Clean at startup & shutdown
HDMI (📖 256)	
Output resolution (📖 257)	Auto
Advanced (📖 257)	
Output range	Auto
Output display size	95%
Live view on-screen display	On
Flicker reduction (📖 329)	Auto
Time zone and date (📖 329)	
Daylight saving time (📖 329)	Off
Auto image rotation (📖 331)	On
GPS (📖 218)	
Auto meter-off	Enable
Use GPS to set camera clock	Yes
Eye-Fi upload (📖 339)	Enable

Exposure Program

The exposure program for programmed auto (📖 118) is shown in the following graph:

ISO 100; lens with maximum aperture of f/1.4 and minimum aperture of f/16 (e.g., AF 50mm f/1.4D)



The maximum and minimum values for EV vary with ISO sensitivity; the above graph assumes an ISO sensitivity of ISO 100 equivalent. When matrix metering is used, values over 16 1/3 EV are reduced to 16 1/3 EV.

Troubleshooting

If the camera fails to function as expected, check the list of common problems below before consulting your retailer or Nikon representative.

■■ *Display*

Viewfinder is out of focus: Adjust viewfinder focus or use optional diopter adjustment lenses (🕮 35, 388).

Viewfinder is dark: Insert a fully-charged battery (🕮 19, 37).

Displays turn off without warning: Choose longer delays for Custom Setting c2 (**Auto meter-off delay**) or c4 (**Monitor off delay**) (🕮 291, 292).

Displays in control panel or viewfinder are unresponsive and dim: The response times and brightness of these displays vary with temperature.

If the Camera Stops Responding

In extremely rare instances, the displays may not respond as expected and the camera may stop functioning. In most cases, this phenomenon is caused by a strong external static charge. Turn the camera off, remove and replace the battery, taking care to avoid burns, and turn the camera on again, or, if you are using an AC adapter (available separately), disconnect and reconnect the adapter and turn the camera on again. If the problem persists, contact your retailer or Nikon-authorized service representative.

■■ *Shooting*

Camera takes time to turn on: Delete files or folders.

Shutter-release disabled:

- Memory card is full (📖 29, 38).
- **Release locked** is selected for Custom Setting f11 (**Slot empty release lock**; 📖 319) and no memory card is inserted (📖 29).
- CPU lens with aperture ring attached but aperture not locked at highest f-number. If FE E is displayed in the control panel, select **Aperture ring** for Custom Setting f9 (**Customize command dials**) > **Aperture setting** to use lens aperture ring to adjust aperture (📖 317).
- Exposure mode S selected with bULb selected for shutter speed (📖 418).

Camera is slow to respond to shutter-release button: Select **Off** for Custom Setting d4 (**Exposure delay mode**; 📖 293).

Only one shot taken each time shutter-release button is pressed in continuous release mode:

- Lower the built-in flash (📖 107).
- Turn HDR off (📖 176).

Photos are out of focus:

- Rotate focus-mode selector to **AF** (📖 91).
- Camera unable to focus using autofocus: use manual focus or focus lock (📖 98, 101).

Full range of shutter speeds not available: Flash in use. Flash sync speed can be selected using Custom Setting e1 (**Flash sync speed**); when using compatible flash units, choose **1/320 s (Auto FP)** or **1/250 s (Auto FP)** for full range of shutter speeds (📖 299).

Focus does not lock when shutter-release button is pressed halfway: Camera is in focus mode **AF-C**: use AF-L **AE-L/AF-L** button to lock focus (📖 98).

Can not select focus point:

- Unlock focus selector lock (📖 96).
- Auto-area AF or face-priority AF selected for AF-area mode; choose another mode (📖 49, 93).
- Camera is in playback mode (📖 219).
- Menus are in use (📖 259).
- Press shutter-release button halfway to activate exposure meters (📖 42).

Image size can not be changed: **Image quality** set to **NEF (RAW)** (📖 84).

Camera is slow to record photos: Turn long exposure noise reduction off (📖 277).

AF-assist illuminator does not light:

- AF-assist lamp does not light if **AF-C** is selected for autofocus mode (📖 91). Choose **AF-S**. If an option other than auto-area AF is selected for AF-area mode, select center focus point (📖 96).
- The camera is currently in live view or a movie is being recorded.
- **Off** selected for Custom Setting a8 (**Built-in AF-assist illuminator**) (📖 286).
- Illuminator has turned off automatically. Illuminator may become hot with continued use; wait for lamp to cool down.

Flicker or banding appear during live view or movie recording: Choose an option for **Flicker reduction** that matches the frequency of the local AC power supply (📖 329).

Bright bands appear during live view or movie recording: A flash or other light source with brief duration was used during live view or movie recording.

Noise (bright spots, randomly-spaced bright pixels, fog, lines, or reddish areas) appears in photos:

- To reduce randomly-spaced bright pixels, fog, or lines, choose lower ISO sensitivity or use high ISO noise reduction (📖 109, 277).
- To reduce bright spots, randomly-spaced bright pixels, or fog at shutter speeds slower than 1 s or to reduce reddish areas and other artifacts in long time-exposures, enable long exposure noise reduction (📖 277).
- Turn **Active D-Lighting** off to avoid heightening the effects of noise (📖 175).

Photos are blotched or smeared:

- Clean lens.
- Clean low-pass filter (📖 394).

Colors are unnatural:

- Adjust white balance to match light source (📖 145).
- Adjust **Set Picture Control** settings (📖 163).

Can not measure white balance: Subject is too dark or too bright (📖 157).

Image can not be selected as source for preset white balance: Image was not created with D800 (📖 158).

White balance bracketing unavailable:
- NEF (RAW) or NEF+JPEG image quality option selected for image quality (📖 84).
- Multiple exposure mode is in effect (📖 195).

Effects of Picture Control differ from image to image: A (auto) is selected for sharpening, contrast, or saturation. For consistent results over a series of photographs, choose a setting other than **A** (auto) (📖 167).

Metering can not be changed: Autoexposure lock or movie live view is in effect (📖 59, 129).

Exposure compensation can not be used: Choose exposure mode *P*, *S*, or *A* (📖 131).

Sound is not recorded with movies: **Microphone off** is selected for **Movie settings** > **Microphone** (📖 70).

■■ *Playback*

NEF (RAW) image is not played back: Photo was taken at image quality of NEF + JPEG (📖 85).

Can not view pictures recorded with other cameras: Pictures recorded with other makes of camera may not be displayed correctly.

Some photos are not displayed during playback: Select **All** for **Playback folder** (📖 260).

"Tall" (portrait) orientation photos are displayed in "wide" (landscape) orientation:
- Select **On** for **Rotate tall** (📖 266).
- Photo was taken with **Off** selected for **Auto image rotation** (📖 331).
- Photo is displayed in image review (📖 220).
- Camera was pointed up or down when photo was taken (📖 331).

Can not delete photo:
- Picture is protected: remove protection (📖 233).
- Memory card is locked (📖 34).

Can not retouch picture: Picture was not created with D800 (📖 342).

Message is displayed stating that no images are available for playback: Select **All** for **Playback folder** (📖 260).

Can not change print order:
- Memory card is full: delete pictures (□ 38, 234).
- Memory card is locked (□ 34).

Can not select photo for printing: NEF (RAW) and TIFF photos can not be printed by direct USB connection. Use DPOF print service (TIFF images only), create JPEG copy using **NEF (RAW) processing** (□ 353), or transfer to computer and print using ViewNX 2 (supplied) or Capture NX 2 (available separately; □ 389).

Photo is not displayed on high-definition video device: Confirm that HDMI cable (available separately) is connected (□ 256).

Photos are not displayed in Capture NX 2: Update to latest version (□ 389).

Image Dust Off option in Capture NX 2 does not have desired effect: Image sensor cleaning changes the position of dust on the low-pass filter. Dust off reference data recorded before image sensor cleaning is performed can not be used with photographs taken after image sensor cleaning is performed. Dust off reference data recorded after image sensor cleaning is performed can not be used with photographs taken before image sensor cleaning is performed (□ 327).

Computer displays NEF (RAW) images differently from camera: Third-party software does not display effects of Picture Controls, Active D-Lighting, or vignette control. Use ViewNX 2 (supplied) or optional Nikon software such as Capture NX 2 (available separately).

Can not transfer photos to computer: OS not compatible with camera or transfer software. Use card reader to copy photos to computer (□ 242).

■■ *Miscellaneous*

Date of recording is not correct: Set camera clock (□ 27).

Menu item can not be selected: Some options are not available at certain combinations of settings or when no memory card is inserted. Note that **Battery info** option is not available when camera is powered by an optional EP-5B power connector and EH-5b AC adapter (□ 332).

Error Messages

This section lists the indicators and error messages that appear in the viewfinder, control panel, and monitor.

Indicator		Problem	Solution	🕮
Control panel	Viewfinder			
FE E (blinks)		Lens aperture ring is not set to minimum aperture.	Set ring to minimum aperture (largest f-number).	25
		Low battery.	Ready a fully-charged spare battery.	19, 37
(blinks)	(blinks)	• Battery exhausted. • Battery can not be used. • An extremely exhausted rechargeable Li-ion battery or a third-party battery is inserted either in the camera or in the optional MB-D12 battery pack.	• Recharge or replace battery. • Contact Nikon-authorized service representative. • Replace the battery, or recharge the battery if the rechargeable Li-ion battery is exhausted.	xix, 19, 21, 387
CLOCK (blinks)	—	Camera clock is not set.	Set camera clock.	27
AF		No lens attached, or non-CPU lens attached without specifying maximum aperture. Aperture shown in stops from maximum aperture.	Aperture value will be displayed if maximum aperture is specified.	212

Indicator		Problem	Solution	🕮
Control panel	Viewfinder			
—	▶◀ (blinks)	Camera unable to focus using autofocus.	Change composition or focus manually.	40, 101
(Exposure indicators and shutter speed or aperture display blink)		Subject too bright; photo will be overexposed.	• Use a lower ISO sensitivity. • Use optional ND filter. In exposure mode: S Increase shutter speed A Choose a smaller aperture (larger f-number)	109 389 119 120
		Subject too dark; photo will be underexposed.	• Use a higher ISO sensitivity. • Use flash. In exposure mode: S Lower shutter speed A Choose a larger aperture (smaller f-number)	109 181, 380 119 120
buLb (blinks)		buLb selected in exposure mode S.	Change shutter speed or select manual exposure mode.	119, 122
buSY (blinks)	bSY (blinks)	Images are being processed.	Wait until processing is complete.	—

Indicator		Problem	Solution	🕮
Control panel	Viewfinder			
—	ϟ (blinks)	If indicator blinks for 3s after flash fires, photo may be underexposed.	Check photo in monitor; if underexposed, adjust settings and try again.	187
FULL CF/SD (blinks)	FUL (blinks)	Memory insufficient to record further photos at current settings, or camera has run out of file or folder numbers.	• Reduce quality or size. • Delete photographs after copying important images to computer or other device. • Insert new memory card.	84, 87 234 29
Err (blinks)		Camera malfunction.	Release shutter. If error persists or appears frequently, consult Nikon-authorized service representative.	—

The CF and SD Icons
These icons flash to show the card affected.

Indicator		Problem	Solution	
Monitor	Control panel			
No memory card.	[-E-]	Camera cannot detect memory card.	Turn camera off and confirm that card is correctly inserted.	29
This memory card cannot be used. Card may be damaged. Insert another card.	CArd [Err] CF/SD (blinks)	• Error accessing memory card.	• Use Nikon-approved card. • Check that contacts are clean. If card is damaged, contact retailer or Nikon representative.	434 —
		• Unable to create new folder.	• Delete files or insert new memory card after copying important images to computer or other device.	29, 234
📡	CArd, [Err] (blinks)	Camera can not control Eye-Fi card.	• Check that Eye-Fi card firmware is up to date. • Copy files on Eye-Fi card to a computer or other device and format card, or insert new card.	340 29, 239
Memory card is locked. Slide lock to "write" position.	CArd, SD (blinks)	Memory card is locked (write protected).	Slide card write-protect switch to "write" position.	34
Not available if Eye-Fi card is locked.	CArd, [Err], SD (blinks)	Eye-Fi card is locked (write protected).		

Indicator		Problem	Solution	🕮
Monitor	Control panel			
This card is not formatted. Format the card.	[For] (blinks)	Memory card has not been formatted for use in camera.	Format memory card or insert new memory card.	29, 32, 326
Failed to update flash unit firmware. Flash cannot be used. Contact a Nikon-authorized service representative.	—	Firmware for flash unit mounted on camera was not updated correctly.	Contact a Nikon-authorized service representative.	—
Unable to start live view. Please wait.	—	The internal temperature of the camera is high.	Wait for the internal circuits to cool before resuming live view or movie recording.	56, 69
Folder contains no images.	—	No images on memory card or in folder(s) selected for playback.	Select folder containing images from **Playback folder** menu or insert memory card containing images.	29, 260
All images are hidden.	—	All photos in current folder are hidden.	No images can be played back until another folder has been selected or **Hide image** used to allow at least one image to be displayed.	260

Indicator		Problem	Solution	🕮
Monitor	Control panel			
Cannot display this file.	—	File has been created or modified using a computer or different make of camera, or file is corrupt.	File can not be played back on camera.	—
Cannot select this file.	—	Selected image can not be retouched.	Images created with other devices can not be retouched.	342
Check printer.	—	Printer error.	Check printer. To resume, select **Continue** (if available).	248*
Check paper.	—	Paper in printer is not of selected size.	Insert paper of correct size and select **Continue**.	248*
Paper jam.	—	Paper is jammed in printer.	Clear jam and select **Continue**.	248*
Out of paper.	—	Printer is out of paper.	Insert paper of selected size and select **Continue**.	248*
Check ink supply.	—	Ink error.	Check ink. To resume, select **Continue**.	248*
Out of ink.	—	Printer is out of ink.	Replace ink and select **Continue**.	248*

* See printer manual for more information.

Specifications

■■ *Nikon D800/D800E Digital Camera*

Type	
Type	Single-lens reflex digital camera
Lens mount	Nikon F mount (with AF coupling and AF contacts)
Effective pixels	
Effective pixels	36.3 million
Image sensor	
Image sensor	35.9 × 24.0 mm CMOS sensor (Nikon FX format)
Total pixels	36.8 million
Dust-reduction System	Image sensor cleaning, Image Dust Off reference data (requires optional Capture NX 2 software)
Storage	
Image size (pixels)	• **FX (36×24) image area** 7,360 × 4,912 (L) 5,520 × 3,680 (M) 3,680 × 2,456 (S) • **1.2× (30×20) image area** 6,144 × 4,080 (L) 4,608 × 3,056 (M) 3,072 × 2,040 (S) • **DX (24×16) image area** 4,800 × 3,200 (L) 3,600 × 2,400 (M) 2,400 × 1,600 (S) • **5 : 4 (30×24) image area** 6,144 × 4,912 (L) 4,608 × 3,680 (M) 3,072 × 2,456 (S) • **FX-format photographs taken in movie live view** 6,720 × 3,776 (L) 5,040 × 2,832 (M) 3,360 × 1,888 (S) • **DX-format photographs in movie live view** 4,800 × 2,704 (L) 3,600 × 2,024 (M) 2,400 × 1,352 (S) **Note:** Photographs taken in movie live view have an aspect ratio of 16 : 9. A DX-based format is used for photographs taken using the DX (24 × 16) 1.5× image area; an FX-based format is used for all other photographs.

Storage	
File format	• **NEF (RAW)**: 12 or 14 bit, lossless compressed, compressed, or uncompressed • **TIFF (RGB)** • **JPEG**: JPEG-Baseline compliant with fine (approx. 1 : 4), normal (approx. 1 : 8), or basic (approx. 1 : 16) compression (**Size priority**); **Optimal quality** compression available • **NEF (RAW)+JPEG**: Single photograph recorded in both NEF (RAW) and JPEG formats
Picture Control System	Can be selected from Standard, Neutral, Vivid, Monochrome, Portrait, Landscape; selected Picture Control can be modified; storage for custom Picture Controls
Media	SD (Secure Digital) and UHS-I compliant SDHC and SDXC memory cards; Type I CompactFlash memory cards (UDMA compliant)
Dual card slots	Either card can be used for primary or backup storage or for separate storage of NEF (RAW) and JPEG images; pictures can be copied between cards.
File system	DCF (**D**esign Rule for **C**amera **F**ile System) 2.0, DPOF (**D**igital **P**rint **O**rder **F**ormat), Exif (**Ex**changeable **I**mage **F**ile Format for Digital Still Cameras) 2.3, PictBridge

Viewfinder	
Viewfinder	Eye-level pentaprism single-lens reflex viewfinder
Frame coverage	• **FX (36×24)**: Approx. 100% horizontal and 100% vertical • **1.2× (30×20)**: Approx. 97% horizontal and 97% vertical • **DX (24×16)**: Approx. 97% horizontal and 97% vertical • **5:4 (30×24)**: Approx. 97% horizontal and 100% vertical
Magnification	Approx. 0.7 × (50 mm f/1.4 lens at infinity, $-1.0\ m^{-1}$)
Eyepoint	17 mm ($-1.0\ m^{-1}$; from center surface of viewfinder eyepiece lens)
Diopter adjustment	$-3-+1\ m^{-1}$
Focusing screen	Type B BriteView Clear Matte Mark VIII screen with AF area brackets and framing grid
Reflex mirror	Quick return

Viewfinder	
Depth-of-field preview	When depth-of-field preview button is pressed, lens aperture is stopped down to value selected by user (A and M modes) or by camera (P and S modes)
Lens aperture	Instant return, electronically controlled

Lens	
Compatible lenses	Compatible with AF NIKKOR lenses, including type G and D lenses (some restrictions apply to PC Micro-NIKKOR lenses) and DX lenses (using DX 24 × 16 1.5× image area), AI-P NIKKOR lenses, and non-CPU AI lenses (exposure modes A and M only). IX NIKKOR lenses, lenses for the F3AF, and non-AI lenses can not be used. The electronic rangefinder can be used with lenses that have a maximum aperture of f/5.6 or faster (the electronic rangefinder supports the 11 focus points with lenses that have a maximum aperture of f/8 or faster).

Shutter	
Type	Electronically-controlled vertical-travel focal-plane shutter
Speed	$^1/_{8000}$ – 30 s in steps of $^1/_3$, $^1/_2$, or 1 EV, bulb, X250
Flash sync speed	X=$^1/_{250}$ s; synchronizes with shutter at $^1/_{320}$ s or slower (flash range drops at speeds between $^1/_{250}$ and $^1/_{320}$ s)

Release	
Release mode	S (single frame), CL (continuous low speed), CH (continuous high speed), Q (quiet shutter-release), ⏲ (self-timer), MUP (mirror up)

Release		
Approximate frame advance rate	**With EN-EL15 batteries** **Image area:** FX/5 : 4 **CL:** 1–4 fps **CH:** 4 fps **Image area:** DX/1.2× **CL:** 1–5 fps **CH:** 5 fps	**Other power sources** **Image area:** FX/5 : 4 **CL:** 1–4 fps **CH:** 4 fps **Image area:** 1.2× **CL:** 1–5 fps **CH:** 5 fps **Image area:** DX **CL:** 1–5 fps **CH:** 6 fps
Self-timer	2 s, 5 s, 10 s, 20 s; 1–9 exposures at intervals of 0.5, 1, 2, or 3 s	

Exposure	
Metering	TTL exposure metering using RGB sensor with approximately 91K (91,000) pixels
Metering method	• **Matrix:** 3D color matrix metering III (type G and D lenses); color matrix metering III (other CPU lenses); color matrix metering available with non-CPU lenses if user provides lens data • **Center-weighted:** Weight of 75% given to 12 mm circle in center of frame. Diameter of circle can be changed to 8, 15, or 20 mm, or weighting can be based on average of entire frame (non-CPU lenses use 12-mm circle or average of entire frame) • **Spot:** Meters 4 mm circle (about 1.5% of frame) centered on selected focus point (on center focus point when non-CPU lens is used)
Range (ISO 100, f/1.4 lens, 20 °C/68 °F)	• **Matrix or center-weighted metering:** 0–20 EV • **Spot metering:** 2–20 EV
Exposure meter coupling	Combined CPU and AI
Exposure mode	Programmed auto with flexible program (**P**); shutter-priority auto (**S**); aperture-priority auto (**A**); manual (**M**)
Exposure compensation	–5 – +5 EV in increments of 1/3, 1/2, or 1 EV
Exposure bracketing	2–9 frames in steps of 1/3, 1/2, 2/3, or 1 EV
Flash bracketing	2–9 frames in steps of 1/3, 1/2, 2/3, or 1 EV

Exposure	
White balance bracketing	2–9 frames in steps of 1, 2, or 3
ADL bracketing	2 frames using selected value for one frame or 3–5 frames using preset values for all frames
Exposure lock	Luminosity locked at detected value with AE-L/AF-L **AE-L/AF-L** button
ISO sensitivity (Recommended Exposure Index)	ISO 100 – 6400 in steps of 1/3, 1/2, or 1 EV. Can also be set to approx. 0.3, 0.5, 0.7, or 1 EV (ISO 50 equivalent) below ISO 100 or to approx. 0.3, 0.5, 0.7, 1, or 2 EV (ISO 25600 equivalent) above ISO 6400; auto ISO sensitivity control available
Active D-Lighting	Can be selected from **Auto**, **Extra high**, **High**, **Normal**, **Low**, or **Off**

Focus	
Autofocus	Nikon Advanced Multi-CAM 3500FX autofocus sensor module with TTL phase detection, fine-tuning, 51 focus points (including 15 cross-type sensors; f/8 supported by 11 sensors), and AF-assist illuminator (range approx. 0.5–3 m/1 ft 8 in.–9 ft 10 in.)
Detection range	–2 – +19 EV (ISO 100, 20 °C/68 °F)
Lens servo	• **Autofocus (AF)**: Single-servo AF (**AF-S**); continuous-servo AF (**AF-C**); predictive focus tracking automatically activated according to subject status • **Manual focus (M)**: Electronic rangefinder can be used
Focus point	Can be selected from 51 or 11 focus points
AF-area mode	Single-point AF, 9-, 21-, or 51- point dynamic-area AF, 3D-tracking, auto-area AF
Focus lock	Focus can be locked by pressing shutter-release button halfway (single-servo AF) or by pressing AE-L/AF-L **AE-L/AF-L** button

Flash	
Built-in flash	Manual pop-up with button release and a Guide Number of 12/39, 12/39 with manual flash (m/ft, ISO 100, 20 °C/68 °F)
Flash control	**TTL**: i-TTL flash control using RGB sensor with approximately 91K (91,000) pixels is available with built-in flash and SB-910, SB-900, SB-800, SB-700, SB-600, or SB-400; i-TTL balanced fill-flash for digital SLR is used with matrix and center-weighted metering, standard i-TTL flash for digital SLR with spot metering
Flash mode	Front curtain sync, slow sync, rear-curtain sync, red-eye reduction, red-eye reduction with slow sync, slow rear-curtain sync; Auto FP High-Speed Sync supported
Flash compensation	–3 – +1 EV in increments of $^1/_3$, $^1/_2$, or 1 EV
Flash-ready indicator	Lights when built-in flash or optional flash unit is fully charged; blinks for 3 s after flash is fired at full output
Accessory shoe	ISO 518 hot-shoe with sync and data contacts and safety lock
Nikon Creative Lighting System (CLS)	Advanced Wireless Lighting supported with built-in flash, SB-910, SB-900, SB-800, or SB-700 as a master flash and SB-600 or SB-R200 as remotes, or SU-800 as commander; built-in flash can serve as master flash in commander mode; Auto FP High-Speed Sync and modeling illumination supported with all CLS-compatible flash units except SB-400; Flash Color Information Communication and FV lock supported with all CLS-compatible flash units
Sync terminal	ISO 519 sync terminal with locking thread

White balance	
White balance	Auto (2 types), incandescent, fluorescent (7 types), direct sunlight, flash, cloudy, shade, preset manual (up to 4 values can be stored), choose color temperature (2500 K–10000 K), all with fine-tuning.

Live view	
Modes	Live view photography (still images), movie live view (movies)
Lens servo	• **Autofocus (AF)**: Single-servo AF (**AF-S**); full-time servo AF (**AF-F**) • Manual focus (**M**)
AF-area mode	Face-priority AF, wide-area AF, normal-area AF, subject-tracking AF
Autofocus	Contrast-detect AF anywhere in frame (camera selects focus point automatically when face-priority AF or subject-tracking AF is selected)

Movie	
Metering	TTL exposure metering using main image sensor
Frame size (pixels) and frame rate	• 1,920 × 1,080; 30 p (progressive), 25 p, 24 p • 1,280 × 720; 60 p, 50 p, 30 p, 25 p Actual frame rates for 60 p, 50 p, 30 p, 25 p, and 24 p are 59.94, 50, 29.97, 25, and 23.976 fps respectively; options support both ★high and normal image quality
File format	MOV
Video compression	H.264/MPEG-4 Advanced Video Coding
Audio recording format	Linear PCM
Audio recording device	Built-in monaural or external stereo microphone; sensitivity adjustable
Other options	Index marking, time-lapse photography

Monitor	
Monitor	8-cm/3.2-in., approx. 921k-dot (VGA) TFT LCD with 170 ° viewing angle, approx. 100% frame coverage, and automatic monitor brightness control using ambient brightness sensor

Playback	
Playback	Full-frame and thumbnail (4, 9, or 72 images) playback with playback zoom, movie playback, photo and/or movie slide shows, highlights, histogram display, auto image rotation, and image comment (up to 36 characters)

Interface	
USB	SuperSpeed USB (USB 3.0 Micro-B connector)
HDMI output	Type C mini-pin HDMI connector; can be used simultaneously with camera monitor
Audio input	Stereo mini-pin jack (3.5 mm diameter)
Audio output	Stereo mini-pin jack (3.5 mm diameter)
Ten-pin remote terminal	Can be used to connect optional remote control, GP-1 GPS unit, or GPS device compliant with NMEA0183 version 2.01 or 3.01 (requires optional MC-35 GPS adapter cord and cable with D-sub 9-pin connector)

Supported languages	
Supported languages	Arabic, Chinese (Simplified and Traditional), Czech, Danish, Dutch, English, Finnish, French, German, Indonesian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Romanian, Russian, Spanish, Swedish, Thai, Turkish, Ukrainian

Power source	
Battery	One rechargeable Li-ion EN-EL15 battery
Battery pack	Optional MB-D12 multi-power battery pack with one rechargeable Nikon EN-EL18 Li-ion battery (available separately), one rechargeable Nikon EN-EL15 Li-ion battery, or eight AA alkaline, Ni-MH, or lithium batteries. A BL-5 battery-chamber cover is required when using EN-EL18 batteries.
AC adapter	EH-5b AC adapter; requires EP-5B power connector (available separately)

Tripod socket	
Tripod socket	1/4 in. (ISO 1222)

Dimensions/weight	
Dimensions (W × H × D)	Approx. 146 × 123 × 81.5 mm (5.7 × 4.8 × 3.2 in.)
Weight	Approx. 1,000 g (2 lb 3.3 oz) with battery and SD memory card but without body cap; approx. 900 g/1 lb 15.7 oz (camera body only)

Operating environment	
Temperature	0–40 °C (+32–104 °F)
Humidity	Less than 85% (no condensation)

- Unless otherwise stated, all figures are for a camera with a fully-charged battery operating at an ambient temperature of 20 °C (68 °F).
- Nikon reserves the right to change the specifications of the hardware and software described in this manual at any time and without prior notice. Nikon will not be held liable for damages that may result from any mistakes that this manual may contain.

MH-25 battery charger	
Rated input (in North America)	AC 120 V, 60 Hz, 0.2 A
Rated input (in other regions)	AC 100–240 V, 50/60 Hz, 0.23–0.12 A
Rated output	DC 8.4 V/1.2 A
Supported batteries	Nikon EN-EL15 rechargeable Li-ion batteries
Charging time	Approx. 2 hours and 35 minutes at an ambient temperature of 25 °C/77 °F when no charge remains
Operating temperature	0–40 °C (+32–104 °F)
Dimensions (W × H × D)	Approx. 91.5 × 33.5 × 71 mm/3.6 × 1.3 × 2.8 in., excluding projections
Length of cord	Approx. 1.8 m/6 ft (U.S.A. and Canada) or 1.5 m/4.9 ft (other countries)
Weight	Approx. 110 g/3.9 oz, excluding power cable and AC wall adapter

EN-EL15 rechargeable Li-ion battery	
Type	Rechargeable lithium-ion battery
Rated capacity	7.0 V, 1,900 mAh
Operating temperature	0–40 °C (+32–104 °F)
Dimensions (W × H × D)	Approx. 40 × 56 × 20.5 mm/1.6 × 2.2 × 0.8 in.
Weight	Approx. 88 g/3.1 oz, excluding terminal cover

Supported Standards

- **DCF Version 2.0**: The Design Rule for Camera File System (DCF) is a standard widely used in the digital camera industry to ensure compatibility among different makes of camera.
- **DPOF**: Digital Print Order Format (DPOF) is an industry-wide standard that allows pictures to be printed from print orders stored on the memory card.
- **Exif version 2.3**: The camera supports Exif (Exchangeable Image File Format for Digital Still Cameras) version 2.3, a standard in which information stored with photographs is used for optimal color reproduction when the images are output on Exif-compliant printers.
- **PictBridge**: A standard developed through cooperation with the digital camera and printer industries, allowing photographs to be output directly to a printer without first transferring them to a computer.
- **HDMI**: High-Definition Multimedia Interface is a standard for multimedia interfaces used in consumer electronics and AV devices capable of transmitting audiovisual data and control signals to HDMI-compliant devices via a single cable connection.

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Approved Memory Cards

The camera accepts the SD and CompactFlash memory cards listed in the following sections. Other cards have not been tested. For more details on the cards listed below, please contact the manufacturer.

■■ *SD Memory Cards*

The following cards have been tested and approved for use in the camera. Cards with class 6 or faster write speeds are recommended for movie recording. Recording may end unexpectedly when cards with slower write speeds are used.

	SD cards	SDHC cards[2]	SDXC cards[3]
SanDisk	2 GB[1]	4 GB, 8 GB, 16 GB, 32 GB	64 GB
Toshiba			
Panasonic		4 GB, 6 GB, 8 GB, 12 GB, 16 GB, 24 GB, 32 GB	48 GB, 64 GB
Lexar Media		4 GB, 8 GB, 16 GB	—
Platinum II		4 GB, 8 GB, 16 GB, 32 GB	
Professional			
Full-HD Video	—	4 GB, 8 GB, 16 GB	

1 Check that any card readers or other devices with which the card will be used support 2 GB cards.

2 Check that any card readers or other devices with which the card will be used are SDHC-compliant. The camera supports UHS-1.

3 Check that any card readers or other devices with which the card will be used are SDXC-compliant. The camera supports UHS-1.

■■ *CompactFlash Memory Cards*

The following Type I CompactFlash memory cards have been tested and approved for use in the camera. Type II cards and microdrives can not be used.

SanDisk	Extreme Pro	SDCFXP	16 GB, 32 GB, 64 GB, 128 GB
	Extreme	SDCFX	8 GB, 16 GB, 32 GB
	Extreme IV	SDCFX4	2 GB, 4 GB, 8 GB, 16 GB
	Extreme III	SDCFX3	2 GB, 4 GB, 8 GB, 16 GB
	Ultra II	SDCFH	2 GB, 4 GB, 8 GB
	Standard	SDCFB	2 GB, 4 GB
Lexar Media	Professional UDMA	600×	8 GB, 16 GB, 32 GB
		400×	8 GB, 16 GB, 32 GB
		300×	2 GB, 4 GB, 8 GB, 16 GB
	Professional	233×	2 GB, 4 GB, 8 GB
		133×	2 GB, 4 GB, 8 GB
		80×	2 GB, 4 GB
	Platinum II	80×	2 GB, 4 GB, 8 GB, 16 GB
		60×	4 GB

Memory Card Capacity

The following table shows the approximate number of pictures that can be stored on an 8 GB Toshiba R95 W80MB/s UHS-I SDHC card at different image quality (🕮 84), image size (🕮 87), and image area settings (🕮 79).

■■ FX (36×24) *Image Area* *

Image quality	Image size	File size [1]	No. of images [1]	Buffer capacity [2]
NEF (RAW), Lossless compressed, 12-bit	—	32.4 MB	133	21
NEF (RAW), Lossless compressed, 14-bit	—	41.3 MB	103	17
NEF (RAW), Compressed, 12-bit	—	29.0 MB	182	25
NEF (RAW), Compressed, 14-bit	—	35.9 MB	151	20
NEF (RAW), Uncompressed, 12-bit	—	57.0 MB	133	18
NEF (RAW), Uncompressed, 14-bit	—	74.4 MB	103	16
TIFF (RGB)	L	108.2 MB	71	16
	M	61.5 MB	126	18
	S	28.0 MB	277	26
JPEG fine [3]	L	16.3 MB	360	56
	M	10.4 MB	616	100
	S	5.2 MB	1200	100
JPEG normal [3]	L	9.1 MB	718	100
	M	5.3 MB	1200	100
	S	2.6 MB	2400	100
JPEG basic [3]	L	4.0 MB	1400	100
	M	2.7 MB	2400	100
	S	1.4 MB	4800	100

* Includes images taken with non-DX lenses when **On** is selected for **Auto DX crop**.

■ DX (24×16) *Image Area* *

Image quality	Image size	File size [1]	No. of images [1]	Buffer capacity [2]
NEF (RAW), Lossless compressed, 12-bit	—	14.9 MB	303	38
NEF (RAW), Lossless compressed, 14-bit	—	18.6 MB	236	29
NEF (RAW), Compressed, 12-bit	—	13.2 MB	411	54
NEF (RAW), Compressed, 14-bit	—	16.2 MB	343	41
NEF (RAW), Uncompressed, 12-bit	—	25.0 MB	303	30
NEF (RAW), Uncompressed, 14-bit	—	32.5 MB	236	25
TIFF (RGB)	L	46.6 MB	165	21
	M	26.8 MB	289	26
	S	12.5 MB	616	41
JPEG fine [3]	L	8.0 MB	796	100
	M	5.1 MB	1200	100
	S	2.7 MB	2300	100
JPEG normal [3]	L	4.1 MB	1500	100
	M	2.6 MB	2500	100
	S	1.4 MB	4600	100
JPEG basic [3]	L	2.0 MB	3000	100
	M	1.3 MB	5000	100
	S	0.7 MB	8900	100

* Includes images taken with DX lenses when **On** is selected for **Auto DX crop**.

1 All figures are approximate. File size varies with scene recorded.
2 Maximum number of exposures that can be stored in memory buffer at ISO 100. Drops if **Optimal quality** is selected for **JPEG compression**, ISO sensitivity is set to Hi 0.3 or higher, **High ISO NR** is on when auto ISO sensitivity control is on or ISO sensitivity is set to ISO 1600 or higher, or long exposure noise reduction, Active D-Lighting, or auto distortion control is on.
3 Figures assume **JPEG compression** is set to **Size priority**. Selecting **Optimal quality** increases the file size of JPEG images; number of images and buffer capacity drop accordingly.

d3—Max. Continuous Release (📖 293)
The maximum number of photographs that can be taken in a single burst can be set to any amount between 1 and 100.

Battery Life

The number of shots that can be taken with fully-charged batteries varies with the condition of the battery, temperature, and how the camera is used. In the case of AA batteries, capacity also varies with make and storage conditions; some batteries can not be used. Sample figures for the camera and optional MB-D12 multi-power battery pack are given below.

- **CIPA standard** [1]
  One EN-EL15 battery (camera): Approximately 900 shots
  One EN-EL15 battery (MB-D12): Approximately 900 shots
  One EN-EL18 battery (MB-D12): Approximately 1,400 shots
  Eight AA alkaline batteries (MB-D12): Approximately 1,000 shots
- **Nikon standard** [2]
  One EN-EL15 battery (camera): Approximately 2,400 shots
  One EN-EL15 battery (MB-D12): Approximately 2,400 shots
  One EN-EL18 battery (MB-D12): Approximately 3,800 shots
  Eight AA alkaline batteries (MB-D12): Approximately 2,400 shots

1 Measured at 23 °C/73.4 °F (±2 °C/3.6 °F) with an AF-S NIKKOR 24-120mm f/4G ED VR lens under the following test conditions: lens cycled from infinity to minimum range and one photograph taken at default settings once every 30 s; flash fired once every other shot. Live view not used.

2 Measured at 20 °C/68 °F with an AF-S NIKKOR 70-200mm f/2.8G ED VR II lens under the following test conditions: vibration reduction off, image quality set to JPEG normal, image size set to **L** (large), shutter speed 1/250 s, shutter-release button pressed halfway for three seconds and focus cycled from infinity to minimum range three times; six shots are then taken in succession and monitor turned on for five seconds and then turned off; cycle repeated once exposure meters have turned off.

The following can reduce battery life:

- Using the monitor
- Keeping the shutter-release button pressed halfway
- Repeated autofocus operations
- Taking NEF (RAW) or TIFF (RGB) photographs
- Slow shutter speeds
- Using an optional WT-4 wireless transmitter
- Using the optional GP-1 GPS unit
- Using VR (vibration reduction) mode with VR lenses

To ensure that you get the most from rechargeable Nikon EN-EL15 batteries:

- Keep the battery contacts clean. Soiled contacts can reduce battery performance.
- Use batteries immediately after charging. Batteries will lose their charge if left unused.

Index

Symbols

P (Programmed auto) 118
S (Shutter-priority auto) 119
A (Aperture-priority auto) 120
M (Manual) 122
S 103
CL 103, 293
CH 103
Q 103
(Self-timer) 103, 106
MUP 104, 108
(Single-point AF) 93
(Dynamic-area AF) 93
(Auto-area AF) 94
(Face-priority AF) 49
(Wide-area AF) 49
(Normal-area AF) 49
(Subject-tracking AF) 49
(Matrix) 115
(Center-weighted) 115, 289
(Spot) 115
Fn button 311, 321
(Info) button 10, 13
(Live view) button 45, 59
? (Help) 15, 18
(Memory buffer) 40, 105
switch 4, 309
● (Focus indicator) 40, 98, 102
PRE (Preset manual) 146, 154

Numerics

1.2× (30×20) 1.2× 80
12-bit 86
14-bit 86
3D color matrix metering III 115
3D-tracking 94, 95
5 : 4 (30 × 24) 80

A

AC adapter 387, 391
Accessories 387
Accessory shoe 380
Active D-Lighting 141, 174
Add items (My Menu) 367
ADL bracketing 141, 307
Adobe RGB (Color space) 274
AE & flash (Auto bracketing set) 132, 307
AE only (Auto bracketing set) 132, 307
AE-L/AF-L button 98, 315, 323
AF 48–50, 91–100, 281–286
AF activation 283
AF area brackets 8, 35
AF fine-tune 338
AF-area mode 49, 93
AF-assist 286, 377, 385
AF-C 91, 281
AF-F 48
AF-mode button 48, 50, 92, 94
AF-ON button 92, 283
AF-S 48, 91, 282
After delete 266
A-M switch 25
Ambient brightness sensor 5, 326
Angle of view 79, 378–379
Aperture 120–122, 126
Aperture lock 126
Aperture-priority auto 120
Approved memory cards 434
Aspect ratio 67, 79, 346
Assign MB-D12 AF-ON 320
Attaching the lens 24
Auto (White balance) 145
Auto bracketing 132, 307, 308
Auto bracketing (Mode M) 308
Auto bracketing set 307
Auto distortion control 276
Auto DX crop 79, 82
Auto FP high-speed sync. 299, 300
Auto image rotation 331
Auto ISO sensitivity control 111
Auto meter off 42, 218, 291

Auto-area AF 94, 95
Autofocus..... 48–50, 91–100, 281–286
Autofocus mode 48, 91

B

Backlight..... 4, 296
Backup..... 89
Battery.... 19, 21, 37, 297, 298, 332, 387
Battery charger 19, 387, 432
Battery info 332
Battery order 298
Battery pack 104, 297, 298, 320, 387
Beep 292
Bit depth for NEF (RAW) images 86
BKT button 133, 137, 141, 180, 197, 316
Black-and-white (Monochrome).... 347
Blue intensifier 348
Body cap..... 1, 24, 389
Border..... 250
Bracketing..... 132, 307, 308
Bracketing order..... 308
Brightness..... 166
Built-in AF-assist Illuminator 286
Built-in flash 181, 375
Bulb 122, 124
Burst..... 293, 312

C

Camera Control Pro 2..... 246, 389
Capture NX 2..... 85, 327, 389
Center-weighted metering..... 115, 289
Charging the battery 19–20
Choose color temp. (White balance)..... 146, 152
Choose image area..... 80, 82
Choose start/end point..... 74
CL mode shooting speed 293
Clean image sensor 394
Clock 27, 329
Clock battery..... 28
Cloudy (White balance) 145
CLS..... 381
Color balance..... 349
Color outline 359
Color sketch 359
Color space..... 274
Color temperature..... 146, 147, 152
Commander mode 301, 303
CompactFlash 29, 326, 434
Compatible lenses 371
Compressed (Type) 86
Computer..... 239
Continuous high speed 103
Continuous low speed 103, 293
Continuous release mode..... 103
Continuous-servo AF 91, 281
Contrast..... 166
Control panel..... 6–7
Coordinated Universal Time (UTC) . 27, 217
Copy image(s) 262
Copyright information 228, 334
CPU contacts 373
CPU lens 25, 371
Creative Lighting System 381
Cropping (PictBridge [Setup] menu) 250
Cross screen 348
Custom setting bank 280
Custom Settings..... 278
Customize command dials..... 317
Cyanotype (Monochrome) 347

D

Date and time..... 27, 329
Date format..... 28, 329
Daylight saving time..... 27, 329
DCF..... 274, 433
Default settings 193, 405
Delete..... 44, 234
Delete all images..... 236
Delete current image..... 44, 234
Deleting selected photographs..... 236
Depth-of-field 117, 120
Depth-of-field preview button 63, 117, 315, 322
Destination (Movie settings)..... 70

Digital Print Order Format (DPOF) 251, 254, 433
Diopter 35, 388
Direct sunlight (White balance) 145
Distortion control 358
D-Lighting 344
DPOF 251, 254, 433
DPOF print order 254
Dust off ref photo 327
DX (24 × 16) 1.5 × 67, 80
DX format 80
DX-based (movie) format 68
Dynamic-area AF 93, 95

E

Easy exposure compensation 288
Edit movie 74, 341
Electronic rangefinder 102
Ethernet 245, 387
EV steps for exposure cntrl 287
Exif 274, 433
Exp./flash comp. step value 287
Exposure 115, 117, 128, 130, 132
Exposure bracketing 132, 307, 308
Exposure compensation 130
Exposure delay mode 293
Exposure differential 178
Exposure indicator 123
Exposure lock 128
Exposure meters 42, 291
Exposure mode 117
Exposure program 411
Extended menu banks 270
External microphone 65, 70, 389
Eye-Fi upload 339

F

Face-priority AF 49
File information 223
File naming 273
File number sequence 294
Filter effects 348
Filter effects (Set Picture Control). 166, 167
Fine-tune optimal exposure 290
Firmware version 340
Fisheye 358
Flash 181, 188, 190, 380, 381
Flash (White balance) 145
Flash bracketing 132, 307, 308
Flash cntrl for built-in flash 301
Flash compensation 188
Flash mode 183
Flash only (Auto bracketing set) 132, 307
Flash pop-up button 181
Flash range 187
Flash shutter speed 184, 300
Flash sync speed 299, 300, 413
Flash sync terminal 380
Flash-ready indicator. 9, 181, 191, 305, 384, 428
Flexible program 118
Flicker reduction 329
Fluorescent (White balance) 145
f-number 121, 374
Focal length 212, 378–379
Focal length scale 24
Focal length scale index 24
Focal plane mark 102
Focus 91–102
Focus indicator 40, 98, 102
Focus lock 98
Focus mode 48, 91, 281, 282
Focus mode switch 24, 25
Focus point 49, 93, 96, 285
Focus point wrap-around 284
Focus tracking 92, 283
Focus tracking with lock-on 283
Focusing screen 424
Focus-mode selector 48, 91, 101
Format 32, 326
Format memory card 326
Frame interval (Slide show) 267
Frame rate 70, 104, 210
Framing grid 8, 295
Front-curtain sync 183
Full-frame playback 219

Full-time servo AF 48
FV lock 190
FX (36 × 24) 1.0 × 80
FX format 67, 80
FX-based (movie) format 67, 68

G

GPS 215, 229
GPS data 229
GPS unit 215
Green intensifier 348

H

H.264 429
HDMI 256, 433
HDMI mini-pin connector 3, 256
Headphones 65
Help 15, 18
Hi 110
Hide image 260
High definition 256, 433
High Dynamic Range (HDR) 176
High ISO NR 277
Highlights 224
Histogram 225, 226, 310
Hue 166

I

Image area 25, 67, 68, 79, 82, 87
Image comment 333
Image Dust Off ref photo 327
Image overlay 350
Image quality 84
Image review 211, 220, 265
Image size 87
Incandescent (White balance) 145
Index 63, 73
Index print 251
In-focus indicator 40, 98, 102
Information 222, 261
Information display 10, 295, 296
Interval timer shooting 201
ISO display and adjustment 295
ISO sensitivity 109, 111
ISO sensitivity step value 287
i-TTL 181, 185, 382

J

JPEG 84
JPEG basic 84
JPEG compression 86
JPEG fine 84
JPEG normal 84

L

L (large) 68, 87
LAN 387
Landscape 163
Language 26, 330
LCD 4, 296, 326
LCD brightness 326
LCD illumination 296
Lens 24–25, 212, 338, 371
Lens cap 24
Lens distance information 185
Lens focus ring 24, 55, 101
Lens mount 4, 25
Live view 45–57, 59–69
Live view photography 45
Live view selector 45, 59
Lo 110
Lock mirror up for cleaning 398
Long exposure NR 277
Lossless compressed (Type) 86

M

M (Manual focus) 101
M (medium) 68, 87
Magnifying eyepiece 388
Manage Picture Control 169
Manual (Exposure mode) 122
Manual flash 301
Manual focus 55, 101
Matrix 115
Max. continuous release 293
Maximum aperture 102, 212
Maximum sensitivity 112
MB-D12 ..... 297, 298
Memory buffer 40, 105
Memory card 29, 32, 326, 434

Memory card capacity 436
Metering 115
Microphone 3, 65, 70
Miniature effect 361
Minimum aperture 25, 117
Minimum shutter speed 112
Mired 150
Mirror 108, 398
Mirror up 108, 398
Mirror up mode 104, 108
Modeling flash 117, 301, 307
Monitor 10, 43, 45, 219, 326
Monitor cover 14
Monitor off delay 292
Monitor pre-flash 185, 301
Monochrome 347
Monochrome (Set Picture Control) 163
Mounting index 3, 25
Movie live view 59, 321–324
Movie settings 70
Movie-record button 61
Movies 59
Multi selector 16, 310
Multiple exposure 195
Multi-selector center button 309
My Menu 366

N

NEF 84, 85, 86
NEF (RAW) 84, 85, 86, 353
NEF (RAW) bit depth 86
NEF (RAW) processing 353
NEF (RAW) recording 86
Neutral (Set Picture Control) 163
Nikon Transfer 2 239
No. of copies (PictBridge [Setup] menu) 249
Noise reduction 277
Non-CPU lens 212, 371
Normal-area AF 49
Number of focus points 285

O

Optimal quality (JPEG compression) 86
Optional flash 380
Overflow 89
Overview data 230

P

Page size 249
Perspective control 360
Photo info 222, 261
PictBridge 247, 433
Picture Control Utility 172
Picture Controls 163
Picture size 378
Playback 43, 219
Playback display options 261
Playback folder 260
Playback information 222, 261
Playback menu 259
Playback zoom 231
Portrait 163
Power connector 387, 391
Predictive focus tracking 92
Preset manual (White balance) 146, 154
Press the shutter-release button halfway 41, 128
Preview button 63, 117, 315, 322
Primary slot 38, 89
Print (DPOF) 251
Print options (PictBridge [Setup] menu) 249
Print select 251
Printing 247
Programmed auto 118
Protecting photographs 233

Q

Quick adjust 166
Quick retouch 357

R

Rank items (My Menu) 369
Rear-curtain sync 183
Recent settings 370
Red intensifier 348
Red-eye correction 345

Red-eye reduction 183
Release button to use dial..... 318
Release mode 103
Remote cord..... 124, 390
Remove items (My Menu) 368
Removing the lens from the camera 25
Repeating flash 301
Reset 193
Resize..... 355
Restoring default settings..... 193, 405
Retouch menu..... 341
Reverse indicators..... 319
RGB..... 84, 225, 274
RGB Histogram..... 225
Rotate tall..... 266

S

S (small) 68, 87
Saturation 166
Save selected frame 74, 77
Save/load settings..... 335
Screen tips 295
SD memory card..... 30, 326, 434
Secondary slot function..... 89
Selective color 362
Self-timer..... 103, 106, 291
Sensitivity..... 109, 111
Sepia (Monochrome) 347
Set Picture Control..... 163
Setup menu..... 325
Shade (White balance) 145
Sharpening 166
Shooting data..... 227
Shooting menu..... 268
Shooting menu bank..... 269
Shutter speed 119, 122, 126
Shutter speed lock..... 126
Shutter-priority auto 119
Shutter-release button 40, 41, 98, 128, 290, 324
Shutter-release button AE-L..... 290
Side-by-side comparison..... 364
Single frame 103
Single-point AF 93, 95
Single-servo AF..... 48, 91, 282
Size..... 68, 87, 346
Size priority (JPEG compression)..... 86
Skylight..... 348
Slide show 267
Slot 29
Slot empty release lock..... 318
Slot selection 159, 221, 342
Slow sync 183
Smoothing..... 178
Soft..... 348
Speedlights 181, 380
Spot..... 115
sRGB (Color space)..... 274
Standard (Set Picture Control) 163
Standard i-TTL flash for digital SLR 185, 382
Start printing 250, 253
Storage folder..... 271
Straighten..... 357

T

Television 256
Ten-pin remote terminal 3, 215, 390
Thumbnail 219, 310
TIFF (RGB)..... 84
Time 27, 329
Time stamp (PictBridge) 250
Time zone 27, 329
Time zone and date 27, 329
Time-lapse photography 207
Timer..... 106, 201
Toning (Set Picture Control)... 166, 168
Transfer photographs..... 243
Trim 346
Tripod 49, 106, 124
Two-button reset 193
Type D lens 371, 373
Type G lens 371, 373

U

Uncompressed (Type) 86
USB..... 243, 248
USB cable..... 1, 243, 248

USB cable clip 1, 243
Use GPS to set camera clock 218
UTC 27, 217, 229

V

Vibration reduction mode switch 24
Viewfinder 8, 35, 424
Viewfinder eyepiece 36, 106, 203
Viewfinder focus 35, 388
Viewing photographs on TV 256
ViewNX 2 ..... 85, 239, 274, 331, 334
Vignette control 275
Virtual horizon 54, 66, 313, 337
Vivid (Set Picture Control) 163

W

Warm filter 348
WB 137, 145
WB bracketing (Auto bracketing set) 137, 307
White balance 137, 145
White balance bracketing 137
Wide-area AF 49
Wireless 245, 387
Wireless network 245, 387
Wireless transmitter 245, 387

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